

Docket No. 10015382-4

Remarks

This Amendment is responsive to the **January 3, 2006** Office Action. Reexamination and reconsideration of **claims 1-8, 10-12, 14-15, 17-25** is respectfully requested.

Summary of The Office Action

Claims 1-3, 6-7 and 10-12, 14, 17-25 were rejected under 35 U.S.C. §102(b) as being clearly anticipated by Baughman et al. (US 5,441,593).

Claims 1-4, 6-7, 10-12, 14-18, 20-25 were rejected under 35 U.S.C. §102(b) as being clearly anticipated by Soik et al. (US 6,745,469 B1).

Claims 1-8, 10-12, 14-15, 17-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Soik et al. (US 6,745,469 B1).

The Present Amendment

Claims 9 and 13 are non-elected claims and have now been canceled.

Claim 1 has amended the term "terminal region" to recite that it is at an end of the slot. This is supported by the figures as well as paragraph [0040], line 1, of the present specification. Thus no new matter has been added.

Independent claim 20 has been amended to delete the phrase "where the long axis does not intersect the first substrate surface". This phrase was added in a previous response but is deemed to be unnecessary to clarify claim 20 or to patentably distinguish claim 20.

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The Claims Patentably Distinguish Over the References of Record

Independent Claim 20

Claim 20 recites:

“forming two terminal regions of the slot into the first surface generally contiguous with and interposed by the central region, each of the two terminal regions having a width at the first surface taken generally orthogonal to a long axis of the slot that is greater than a width of the central region at the first surface taken generally orthogonal to the long axis of the slot.”

As one example, the present application in Figure 5 shows a slot 503 with a central portion 503a and two terminal regions 503b and 503c formed into the first surface 310b. The terminal regions 503b and 503c have a width that is greater than the central region 503a of the slot 503 at the first surface 310b. This figure may assist in visualizing an example of what can be formed by the claimed method.

Applicant respectfully submits that Baughman fails to disclose terminal regions of its slot 18, and fails to illustrate any terminal regions of its slot 18. Therefore, Baughman fails to support the §102 rejection and the rejection must be withdrawn. In particular, all figures in Baughman illustrate a cut-out portion of the slot 18 and a slot extension region 18a. Terminal regions formed in a first surface (as recited in claim 20) would be formed at the ends of the slot region 18a but as clearly seen in Baughman, the ends of the slot region 18a are not illustrated. Figures 4-6 show a cross-section of the central portion of the slot, not the ends. Thus, the formed terminal regions as recited in claim 20 are not disclosed by Baughman.

The Office Action cites Baughman Figures 5C and 6C and identifies sidewalls of slot 18a and sidewalls 18'. Applicant submits that sidewalls 18' are internal to the substrate and thus do not meet the claimed limitation of “a width at the first surface”. If the sidewalls of slot 18a are deemed to be at the first surface of the substrate, then sidewalls 18' are clearly not “at the first surface.” As such, Baughman fails to disclose forming two terminal regions as claimed and fails

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to disclose the terminal regions having a width at the first surface that is greater than a width of the central region of the slot at the first surface as recited in claim 20.

Therefore, since each and every limitation of claim 20 is not taught by Baughman, Baughman fails to establish a proper §102 rejection and the rejection must be withdrawn. Claim 20 is thus in condition for allowance. Accordingly, dependent claims 21-25 also patentably distinguish over the references and are in condition for allowance.

Regarding the Soik patent, Soik also fails to teach or suggest the claimed limitations of forming terminal regions at the first surface that have a width greater than a width of the central region of the slot at the first surface. The Office Action cites Figure 21 of Soik and contour cut 310, back groove 308, and end wall 400. However, contour cut 310 is not a terminal region as claimed. Furthermore, back groove 308 and end wall 400 are not "at the first surface" as recited in claim 20. The claimed first surface represents the relationship between the terminal regions and the slot central region. Instead, Soik shows a surface-view illustration in Figures 6 and 11. As illustrated, the ends of groove 208 (fig. 6) or groove 308 (fig. 11) do not have formed terminal regions that are wider than a central region.

Therefore, Soik fails to teach or suggest the recited limitations of claim 20 and fails to support either the §102 or the §103 rejections. Thus, the rejections must be withdrawn. For these additional reasons, claim 20 patentably distinguishes over the references of record and is in condition for allowance.

Accordingly, dependent claims 21-25 also patentably distinguish over the references and are in condition for allowance.

Independent Claim 1

Claim 1 recites forming at least one bowl-shape into the substrate so that the long axis passes therethrough, the bowl shape being connected to the pair of sidewalls of the slot and defining, at least in part, a terminal region at an end of the slot.

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Based on the explanations above, Baughman fails to disclose terminal regions of its slot 18, and fails to illustrate any terminal regions of its slot 18. Therefore, Baughman fails to support the §102 rejection and the rejection must be withdrawn. Baughman does not discuss or illustrate regions at the ends of the slot 18 and thus does not teach forming a bowl-shape that defines a terminal region at an end of the slot as recited in claim 1.

Likewise, based on the explanations of Soik, Soik fails to teach or suggest forming a bowl-shape that defines a terminal region at an end of the slot as recited in claim 1.

Since claim 1 recites features not taught or suggested by the references, claim 1 patentably distinguishes over the references. Accordingly, dependent claims 2-8 also patentably distinguish over the references and are in condition for allowance.

Dependent Claim 2

Dependent claim 2 recites forming at least one bowl shape into the first surface of the substrate, and wherein the at least one bowl shape has a width at the first surface measured generally orthogonal to the long axis that is greater than a width at the first surface measured generally orthogonal to the long axis between the pair of sidewalls. Neither of the references show the claimed limitation of "a width at the first surface". As described with reference to claim 20 above, the references show sidewalls that are internal within the substrate and are not at the first surface. Thus, the rejection is not supported.

Accordingly, dependent claim 2 distinguishes over the references and is in condition for allowance for this additional reason.

Independent Claim 10

Claim 10 recites forming a fluid-feed slot where the terminal region is wider at the first surface than the central region. As explained above, neither Baughman nor Soik teach or suggest forming the claimed terminal region at the first surface that is wider than the central region of the slot.

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Therefore, both Baughman and Soik fail to teach or suggest the recited limitations of claim 10 and fail to support either the §102 or the §103 rejections. Thus, the rejections must be withdrawn. For these reasons, claim 10 patentably distinguishes over the references of record and is in condition for allowance.

Accordingly, dependent claims 11-12 also patentably distinguish over the references and are in condition for allowance.

Independent Claim 14

Claim 14 recites forming a fluid-feed slot where the fluid-feed slot having a cross-section at the first surface and taken generally parallel the first surface comprising a narrower central region positioned between two wider terminal regions. As explained above, neither Baughman nor Soik teach or suggest forming the claimed terminal region at the first surface. The side walls of the slot and the alleged terminal region cited by the Office Action (from both Baughman and Soik) are not both at the first surface.

Therefore, both Baughman and Soik fail to teach or suggest the recited limitations of claim 14 and fail to support either the §102 or the §103 rejections. Thus, the rejections must be withdrawn. For these reasons, claim 14 patentably distinguishes over the references of record and is in condition for allowance.

Accordingly, dependent claim 15 also patentably distinguishes over the references and is in condition for allowance.

Independent Claim 18

Claim 18 recites forming a slot having a central region and at least one terminal region, the at least one terminal region being formed at an end of the slot and having a bowl-shape. As explained above, neither Baughman nor Soik teach or suggest forming the claimed terminal region at an end of the slot. Baughman fails to discuss and does not illustrate "ends" of the slot 18a. Soik illustrates ends of its grooves but fails to teach or suggest a bowl-shaped terminal region as claimed.

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Therefore, both Baughman and Soik fail to teach or suggest the recited limitations of claim 18 and fail to support either the §102 or the §103 rejections. Thus, the rejections must be withdrawn. For these reasons, claim 18 patentably distinguishes over the references of record and is in condition for allowance.


Accordingly, dependent claim 17 and 19 also patentably distinguish over the references and are in condition for allowance.

Conclusion

For the reasons set forth above, claims 1-8, 10-12, 14-15, and 17-25 patentably and unobviously distinguish over the references of record and are now in condition for allowance. An early allowance of all claims is earnestly solicited.

Respectfully submitted,

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PETER KRAGULJAC (Reg. No. 38,520)
(216) 348-5843
McDonald Hopkins Co., LPA
600 Superior Avenue, E.
Suite 2100
Cleveland, OH 44114